



Building Refurbishment Guidelines

Revised: July 2017

[Issue No 9]

Table of Amendments

ISSUE NO	DATE REVISED	ITEMS CHANGED
1.		Original document
2.	September 2011	<ol style="list-style-type: none"> 1. Insertion of table of amendments 2. Tiered Lecture theatres <ol style="list-style-type: none"> 2.1. Replaces Scottmat Carpets, Sprint rang with Interface, Transformations range 2.2. Removed the green fabric option for furniture to reflect the change in carpets 3. Appendix J – IT Requirements <ol style="list-style-type: none"> 3.1. Added requirement for siting / location of IT rooms 4. Floor and Char Colourway Combinations <ol style="list-style-type: none"> 4.1. Corrected Colourway 5, Chair Colour, Colour Ref: Black YS009 to Havana YS009 5. Laboratories <ol style="list-style-type: none"> 5.1. Corrected Polyflor, Colour Ref: Clove 1840 to Colour Ref: Clove 1830
3.	October 2011	<ol style="list-style-type: none"> 1. Appendix F – Energy Targets <ol style="list-style-type: none"> 1.1. Added additional information
4.	November 2011	<ol style="list-style-type: none"> 1. Energy Targets and Sustainability have been updated and are now under one heading 2. Added appendix J. Standard Installation Requirements
5.	August 2013	<ol style="list-style-type: none"> 1. Update of section E – Ironmongery 2. General tidying of pages.
6.	November 2013	<ol style="list-style-type: none"> 1. Update of Appendix C-Lighting 2. Addition of Appendix O-Way finding Signage
7.	Jan 2014	<ol style="list-style-type: none"> 1. Appendix F - Commissioning guidelines
8.	April 2014	<ol style="list-style-type: none"> 1. Appendix C-Lighting 2. Appendix B- Update of Colour Palette

Contents

Table of Amendments.....	1
Contents	1
Guidelines, Principles and Intentions	3
Bookable Teaching Rooms: Tiered Lecture Theatres	4
Bookable Teaching Rooms: Flat Floor Lecture Theatres.....	5
All Offices and Meeting Rooms - Common Elements.....	6
All Offices – Floor and Chair Colourway Combinations	7
Laboratories.....	8
WC's	11
Appendix A - Typical Door & Screen Diagrams.....	12
Appendix B – Standard Colour Palette.....	14
Appendix C – Lighting.....	16
Appendix D – Accessibility	19
Appendix E – Ironmongery.....	20
Appendix F – Energy & Sustainability	21
Appendix G – Space Standards	24
Appendix H – Toilet Refurbishment.....	25
Appendix I – IT Requirements.....	26
Appendix J – Standard Installation Requirements.....	27
Appendix K – Fire Detection Principles of Design	27
Appendix L - Induction Loops	30
Appendix M - Gases / Solvents and Other Hazardous Substances	31
Appendix N - Asbestos Approved Contractors For Inspection / Removal.....	34
Appendix O- Way finding Signage	

Guidelines, Principles and Intentions

This document provides a standard palette of materials and fittings to be used in the future refurbishment of spaces across the University. Any variation must be approved by the University Estates and Management department. It is the responsibility of those undertaking the work to ensure compliance with current regulations.

It is intended that where spaces are amended or refurbished, they act as a harmonious addition to the University and present a strong unified image, working hand in hand with the University branding. The buildings and spaces contained within must act as a reflection of the University brand to help raise the profile of the University. It is vital that there is a degree of flexibility without losing a sense of coherence. The standardisation of elements across the spaces will help ensure a visual consistency and assist in the maintenance of elements.

The document is separated into distinct main areas covering teaching and non-teaching spaces as well as circulation.

In addition, there are several principles which should be applied throughout:

- All refurbishment projects should meet BREEAM Very Good standard, as a minimum requirement.
- When refurbishing the fabric of the building, the new elements must also be upgraded to current standards and guidance.
- Where feasible, fittings and construction should address energy conservation and sustainability concerns.
- Wherever possible, original features and mouldings should be retained and made good as required. Where previous refurbishment work has obscured partially or fully the original building fabric, it should be removed or adjusted to ensure original feature is fully visible.
- Existing windows must not be obscured by soffits or masking. Where this is the existing condition it must be adjusted as above and made good.
- Proposed false ceilings should only be installed if absolutely required. Where required, see specification for individual spaces.
- Unless there is a specific requirement, air conditioning should not be utilised. Heat recovery for ventilation systems will be considered standard.

Bookable Teaching Rooms: Tiered Lecture Theatres

Floor

Manufacturer: Interface
Product: Transformations
Colour ref: Buckeye 304198



Walls

White paint finish. Minimal colour for use in “feature” walls to be from standard colour palette – see appendix B

Windows/Screens/Blinds

White paint finish to timber frames.

Screens: n/a

Blinds: side action manual roller blinds dual fire retardant fabric

Fabric: 50% screen, 50% blackout including side guide wires

Ceilings (only if required)

Manufacturer: Armstrong
Product: Dune 600x600



Joinery Details

White to architraves/skirting/decorative timberwork unless stated otherwise

Doors

Light oak door. 5 square vision panels
(clear not wired) with brushed stainless steel
kick plates in the direction of opening.
See appendix A



Lighting

See Appendix C

Furniture

Tiered seating fabric
Manufacturer: Camira
Product: 24/7
Colour ref: Perpetual WK013



Lecturer's chair: Stanzo

Lecturer's small table: 700x700mm square, light oak.

Lecturer's presentation table: 1600x800x725mm light oak finish with rear modesty panel in matching finish. Power data module 4 gang socket integrated cable management and CPU holder.

Additional Notes

As general guidelines

Bookable Teaching Rooms: Flat Floor Lecture Theatres

Floor

Manufacturer: Paragon
Product: Workspace Loop
Colour ref: Spice



Walls

White paint finish. Minimal colour for use in "feature" walls to be from standard colour palette – see appendix B

Windows/Screens/Blinds

White paint finish to timber frames.

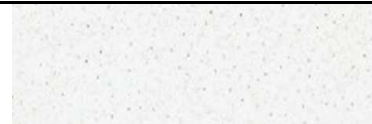
Screens: n/a

Blinds: side action manual roller blinds dual fire retardant fabric

Fabric: 50% screen, 50% blackout including side guide wires

Ceilings (only if required)

Manufacturer: Armstrong
Product: Dune 600x600



Joinery Details

White to architraves/skirting/decorative timberwork unless stated otherwise

Doors

Light oak wood veneer to match with Main Building upper lobby. 5 square vision panels (clear not wired) with brushed stainless steel kick plates in the direction of opening. See appendix A



Lighting

See Appendix C

Ancillary Items

Manufacturer: Brockhouse Modernfold
Product: 500 series as Aston University typical details (contact manufacturer for info)



Furniture

Lecturer's chair: Stanzo
Lecturer's small table: 700x700mm square, light oak.



Lecturer's presentation table: 1600x800x725mm light oak finish with rear modesty panel in matching finish. Power data module 4 gang socket integrated cable management and CPU holder.

Chairs (general): Concerto multipurpose stacking meeting chair, ref: CC10

Finish: Camira, New Aquarius fabric. Colour ref: Munchkin JA029

Additional Notes

As general guidelines

All Offices and Meeting Rooms - Common Elements



Walls

White paint finish. Minimal colour for use in "feature" walls to be from standard colour palette – see appendix B

Windows/Screens/Blinds

Windows: White paint finish

Blinds: White satin vertical blinds

Screens: Proprietary dry jointed glazed screen with manifestation as indicated in Appendix A to BS8300:2009 consultant approval.

Frame Silver Grey RAL 9006



Ceilings (only if required)

Manufacturer: Armstrong

Product: Dune 600x600



Joinery Details

White paint finish

Doors

Paint finish

Corridor: Dulux 00NN13/000

Inner face: White



Lighting

See Appendix C

Furniture: Meeting Rooms

Chairs: Concerto multipurpose stacking/meeting chair.

Ref: CC10

Tables: Rectangular folding table 1500x750x740mm on castors, light oak finish



Indicative furniture images

Furniture: Offices

All desks to be cantilever style, light oak finish with silver frame.

Individual Office

Desk: Wave Desk 1600mm x 1000/800mm (handed as appropriate).

Pedestal: 1 no. under desk pedestal (drawer arrangement chosen by user), light oak finish. Choice of additional pedestal if appropriate to office arrangement; desk height pedestal (drawer arrangement chosen by user), light oak finish.

Open Plan Office

Desk: Wave Desk 1600mm x 1000/800mm (handed as appropriate).

Pedestal: 1 no. under desk pedestal (drawer arrangement chosen by user), light oak finish.

PGR Areas

Desk: straight desk 1000mm x 800mm or fixed benching at 1000mm width per person.











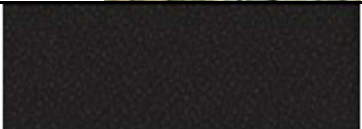
Storage if required; mobile personal storage units or small lockers.

Chair: X10 task chair with height adjustable arms.

Additional Notes

As general guidelines

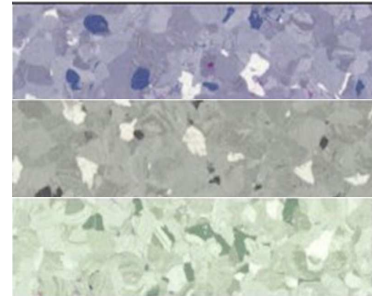
All Offices – Floor and Chair Colourway Combinations

Colourway 1	Floor	Manufacturer: Interface Product: Transformations Colour ref: Wildflower 304194	
	Chair Colour	Fabric: Camira xtreme plus fabric. Colour ref: Windjammer YS047	
Colourway 2	Floor	Manufacturer: Interface Product: Transformations Colour ref: Steppe 345502	
	Chair Colour	Fabric: Camira xtreme plus fabric. Colour ref: Lombok YS159	
Colourway 3	Floor	Manufacturer: Interface Product: Transformations Colour ref: Tropic 345506	
	Chair Colour	Fabric: Camira xtreme plus fabric. Colour ref: Lobster YS076	
		Fabric: Camira new Aquarius Colour Ref: Tambourine JA183	
Colourway 4	Floor	Manufacturer: Interface Product: Transformations Colour ref: Fern 304196	
	Chair Colour	Fabric: Camira xtreme plus fabric. Colour ref: Honeymoon YS035	
Colourway 5	Floor	Manufacturer: Interface Product: Transformations Colour ref: Desert 345504	
	Chair Colour	Fabric: Camira xtreme plus fabric. Colour ref: Havana YS009	

Laboratories

Floor

Vinyl floor tile
Manufacturer: Polyflor
Range: Prestige
Colour Ref: Stone Blue 1840
Colour Ref: Clove 1830
Colour Ref: Chive 1880
Skirting to be Gradius S1100 or similar
approved in complementary colour



Walls

White paint finish.
nb. Special finish may be required dependant on laboratory usage

Windows/Screens/Blinds

White blinds - manual operation. Side action 50/50
Windows: white paint finish. Frame colour to be standard RAL 7006, silver grey.
Acoustic performance to comply with BB93 recommendations.

Ceilings (only if required)

Manufacturer: Armstrong
Product: Dune 600x600



Joinery Details

White

Doors

Paint finish
Corridor: Dulux 00NN13/000
Inner face: White
Vision panels, where required to have 2no. full height - see appendix A

Lighting

See Appendix C

Furniture

Solid laminate worktop to laboratory grade. Edges as required for purpose on formed bench systems - Black finish frame to standard RAL colours. Mobile pedestals in white melamine on lockable castors.

Additional Notes

Please note: this is a generic specification for guidance only. Individual Laboratories may have specific requirements which must be confirmed prior to work commencing.

Main Building - Upper Lobby (Marble Areas)

Floor

Vinyl tiles
Manufacturer: Forbo
Range: Dual. Colour: T2629 Eiger
Range: Vivace. Colour: 3405 Granada
Range: Fresco. Colour: 3871 Silver Birch



Walls

White paint finish.

Windows/Screens/Blinds

Paint finish white to frames.
Blinds: satin white vertical blinds

Ceilings (only if required)

Manufacturer: Armstrong
Product: Dune 600x600



Joinery Details

Skirting, architraves: white paint finish

Doors

Light English Oak.
2 vision panels. See appendix A



Lighting

See Appendix C

Additional Notes

Doors to retain height throughout corridors. See appendix A.
Leading door to be BS 8300:2009+A1:2010 compliant.
Marble vinyl floor finish, previously standardised to existing situations.

Main Building - Corridors

Floor: Hard Finish

Manufacturer: Tarkett
Product: Heterogenous Vinyl
Ref I.D.: Premier wood, 0.7mm stripe,
16.66 x 100cm
Colour: Natural Oak ID 70 4662 052



Floor: Soft Finish

Carpet Tiles
Manufacturer: Interface
Range: Transformation
Colour: Moss Garden



Walls

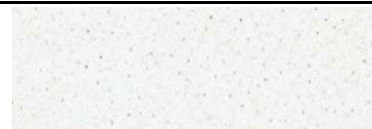
White paint finish

Windows/Screens/Blinds

Paint finish white to frames. Internal blinds.

Ceilings (only if required)

Manufacturer: Armstrong
Product: Dune 600x600



Joinery Details

Skirting, architraves - white paint finish

Doors

Light English Oak
Doors within corridors only, see Appendix A
Full Height with 2 vision panels



Lighting

See Appendix C

Additional Notes

Doors to retain height throughout corridors see appendix A

Leading door to be BS 8300:2009+A1:2010 compliant.

Signage Gateways:

- Yellow – 10YY 24/467
- Green – 50GG 11/251
- Blue – 70BG 24/380
- Red – 43RR 19/444

WC's

Floor

Manufacturer: Tarkett
Product: Safetred Universal
Ref: Black Quasar 3820100



Walls

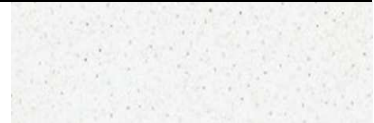
White paint finish.

Windows (if applicable)

Paint finish white to frames

Ceilings (only if required)

Manufacturer: Armstrong
Product: Dune 600x600

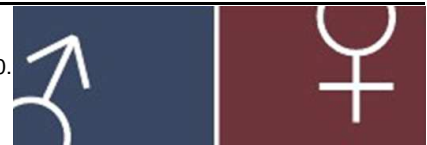


Joinery Details

Architrave and skirting painted white

Doors

Internal doors: Paint finish
Corridor face: grey - Dulux 00NN13/000.
Internal face: Coloured.
Male: Dulux 50BB 08/171
Female: Dulux 30RR 09/187



WC Doors/Panels/Vanity

Panels: grey; refer to standard colour palette

Lighting

See appendix C

Ancillary Items

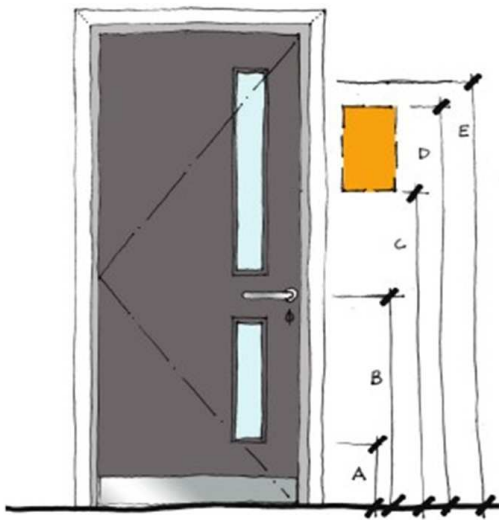
University to free issue supply items for fitting by contractor, including;

- Sanitary bins
- Soap dispensers
- Signage
- Hooks
- Toilet paper dispenser
- Hand towel dispensers if required (only if specification needs)

Contractor to supply and install:

- Electric hand dryers to University
- Specification (Excel Xlerator)
- Ironmongery as appendix E

Appendix A - Typical Door & Screen Diagrams

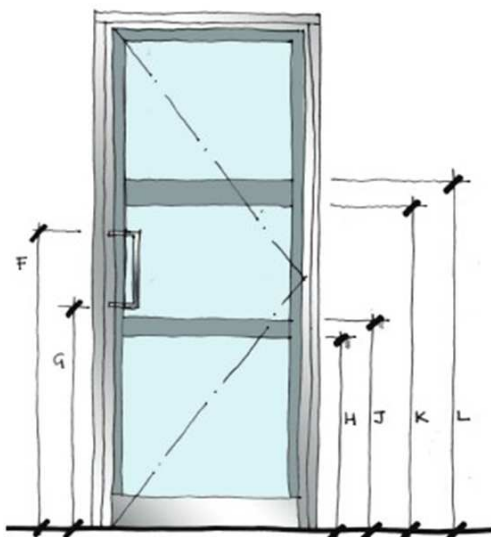


- A. Vision panel (lower limit)
- B. Handle and lock setting out
- C. signage zone (lower limit)
- D. Signage zone (upper limit)
- E. Vision panel (upper limit)

1.
Typical paint finished door with vision panels (doors other than corridor, classroom or pooled space)

Note:
All doors to be BS 8300:2009+A1:2010 compliant including:

Door clear width - new doors only
Door setting out - new doors only
Visual Contrast
Ironmongery setting out
Ironmongery closing forces
Signage typically to leading edge side of door

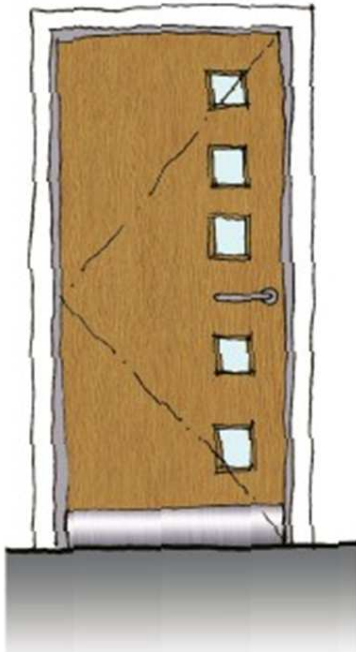


- F. Pull handle (upper limit)
- G. Pull Handle (lower limit)
- H. Manifestation (lower limit)
- J. Manifestation (upper limit)
- L. Upper Manifestation (lower limit)

2.
Typical glazed door showing manifestation and cranked pull handle (to be BS 8300:2009+A1:2010 compliant)

- A – No higher than 500mm above floor level [afl]
- B - 800-1050mm, 900mm preferred
- C – 1400mm
- D – 1700mm
- E – Not less than 1500mm afl [zone of vision required between 500 -1500mm]
- F – Not less than 1300mm
- G – No lower than 700mm and no higher than 1000mm [Suggestion of 900mm to match the preferred dimension for lever handles]
- H – Manifestation that will contrast with the background seen through the glass both from inside and outside in all lighting conditions.
[Wording taken from Building Regulations Approved Document to part K 2013]
- I - 850mm [lower limit]
- J – 1000mm
- K – 1400mm
- L – 1600mm

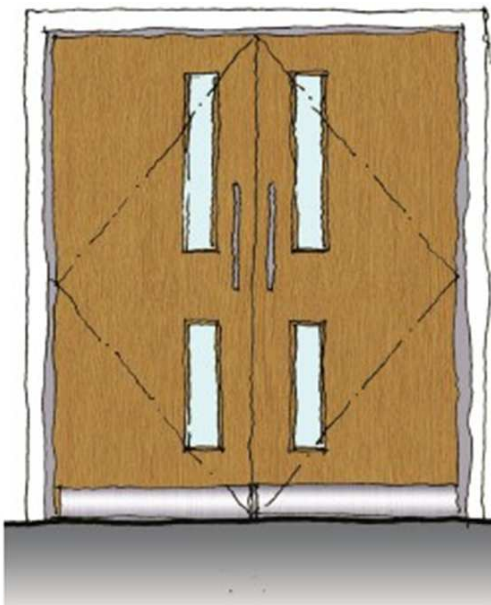
Door opening forces – 30N for the first 30° of the opening cycle, then reducing to 22.5N



3.
Typical veneered door with 5no.
vision panels (bookable teaching
spaces)

Note:
All doors to be BS
8300:2009+A1:2010 compliant
including:

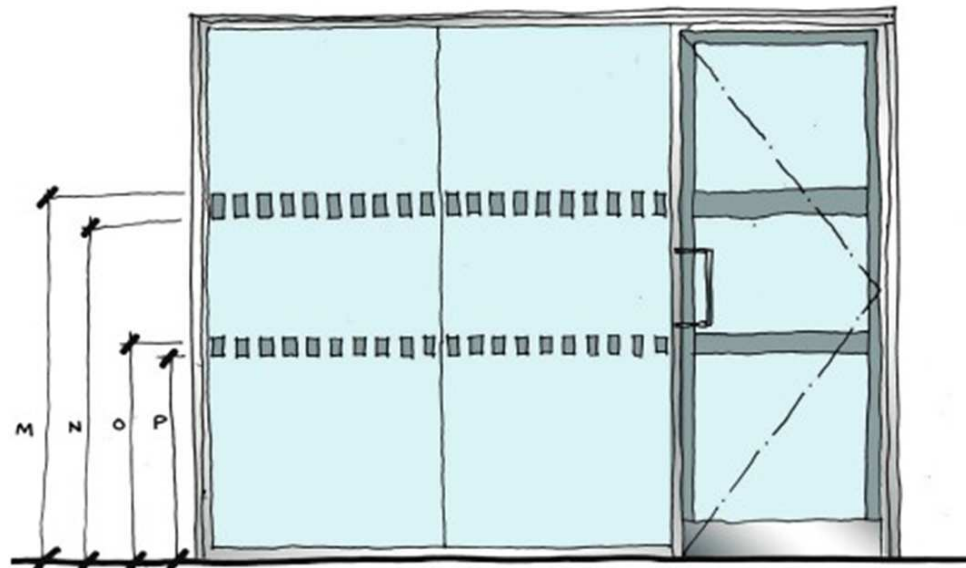
Door clear width - new doors only
Door setting out - new doors only
Visual Contrast
Ironmongery setting out
Ironmongery closing forces



4.
Typical veneered door with 2
no. vision panels (corridors)

Note: height to match existing
corridor doors. e.g. Existing
oversize door heights to be
maintained for consistency

Where door leaves or side panels are wider than 450mm they should have vision panels towards the lead edge of the door to allow a zone of visibility from 500-1500mm. If a mid-rail is necessary, the vision pane; may be interrupted between 800mm and 1150mm.



5.
Typical fixed glazed screen with glazed door showing manifestation and cranked pull handle (to be BS 8300:2009+A1:2010 compliant).

Acoustic screen installations to be specified where required.

Fire rated as required

- M.** Upper Manifestation (upper limit)
- N.** Upper Manifestation (lower limit)
- O.** Manifestation (upper limit)
- P.** Manifestation (lower limit)

RELOCATABLE GLAZED PARTITION SYSTEM WALL

- Planet Partitioning System (glazed) wall - Planet Vertex 'frameless' glazed relocatable partitioning system complete with polyester powder coated perimeter channels.
Skirting (glazed) – None. 25mm Polyester powder coated base glazing section fixed directly to floor.
- Fire rating for panels: Class O as defined by the Building Regulations.
- Sound insulation: 36 dB Rw
Head: Suspended ceiling.
Wall/vertical structure: Plastered masonry.
- Framing: Rolled steel sections to BS2994: 1976
- Junctions/corners: As manufacturer's system. Glass Corners to be free of posts and to be dry jointed.
- Trims: Material grade 6063 extruded sections in T6 condition conforming to B.S. 1474 (1987) polyester powder coated.
- Finish/colour: RAL 9006
Framing polyester powder coated to a thickness of 60/80 microns in a standard range of colours.
Joint treatment: Dry Joint.
- Glazed panels: Full height Vertex 'frameless' double-glazed with translucent interpane gaskets.
Glass type(s): 2 layers of 10mm clear toughened
Manifestation: **TBA**
Blinds: **TBA**
- Doorsets: Full height by Planet Partitions
Door frames: Polyester powder coated aluminium.
Doors: Double Glazed Flush Door
Ironmongery: Planet standard stainless steel

320 SAMPLE(S): Before placing orders submit representative sample(s) of vinyl wall coverings and manifestations.

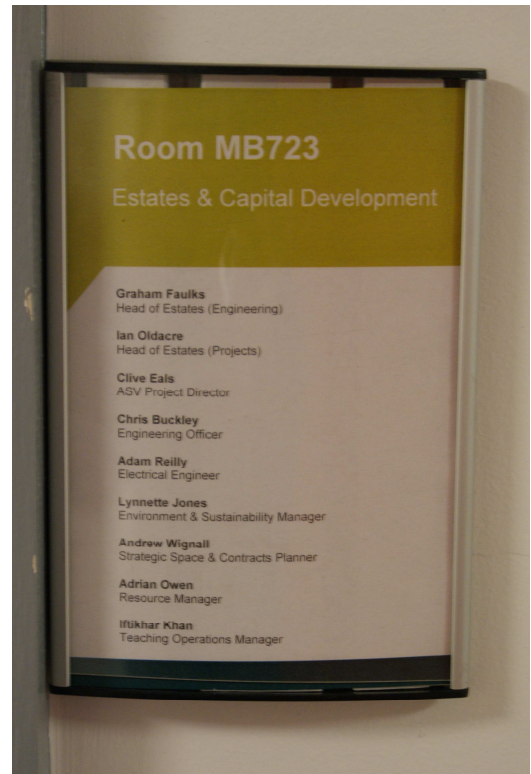
A5/A6 Aluminium door signs/holders:

IMPACT SIGNS NI LTD
UNIT 23-24, EAST BELFAST ENTERPRISE PARK
308 ALBERTBRIDGE ROAD
BELFAST
NORTHERN IRELAND
BT5 4GX
02890 739402 admin@impactsignsni.co.uk

Product code: 600101002

Size: 15cm x 10.5cm

Current Net Price: £12.00



LV & HV Cupboard Door Signage:

BCW Office Products
Unit 4
Darlington Close
Sandy
Bedfordshire
SG19 1RW
0208 133 6709

Product Code: SSP014

Size: 75mm

Current Net Price: £9.29



Appendix B – Standard Colour Palette

Aston’s distinctive colour palette is bold and vibrant and must be used on all of our communications. No other colours may be used. Our palette comprises nine colour couplets which have been chosen to complement and enhance each other.

Only a single colour couplet, along with the grey pair if needed to add depth, can be used on each layout. The colour couplets cannot be combined.

Black may be used for text and where colour reproduction is not available. White may be used for text on dark colours and for background areas.

Colours should not be used to perform a colour coding function.

It is vital that our colours are accurately reproduced. They must always be visually matched to a Pantone swatch, never to previously printed materials. The colour breakdowns on this page must always be used.

Please refer to Aston Design Guide for further information



Pantone® 214
C0 M99 Y58 K20
R204 G2 B86
Dulux: 84RR 13/471



Pantone® 690
C0 M40 Y28 K56
R111 G67 B80
Dulux: 48RR 08/222



Pantone® 253
C0 M51 Y25 K30
R178 G87 B134
Dulux: 21RR 19/459



Pantone® 2765
C48 M35 Y0 K55
R60 G75 B115
Dulux: 92BB 07/350



Pantone® 1655
C0 M50 Y72 K15
R216 G107 B60
Dulux: 60YR 26/605



Pantone® 1675
C0 M50 Y69 K30
R178 G89 B56
Dulux: 53YR 17/504



Pantone® 7461
C100 M30 Y0 K23
R0 G138 B196
Dulux: 99BG 22/432



Pantone® 7463
C40 M23 Y0 K59
R63 G81 B105
Dulux: 50BB 08/171



Pantone® 130
C0 M36 Y87 K14
R220 G141 B29
Dulux: 10YY 34/700



Pantone® 139
C0 M29 Y75 K31
R177 G126 B45
Dulux: 20YY 23/525



Pantone® 7467
C72 M6 Y0 K27
R53 G175 B186
Dulux: 17BG 36/333



Pantone® 3165
C69 M8 Y0 K61
R31 G92 B100
Dulux: 30BG 08/200



Pantone® 390
C5 M0 Y69 K25
R182 G191 B60
Dulux: 90YY 48/650



Pantone® 576
C24 M0 Y52 K47
R104 G136 B65
Dulux: 30GY 21/429



Pantone® 347
C62 M0 Y35 K41
R57 G150 B98
Dulux: 95GY 24/449



Pantone® 343
C79 M0 Y15 K64
R19 G91 B77
Dulux: 42GG 08/250



Pantone® 7537
C10 M0 Y9 K31
R157 G175 B160
90GY 41/101



Pantone® Cool
Gray 11
C0 M0 Y1 K63
R94 G94 B93
00NN 13/000

Appendix C – Lighting

Generally, lighting is to be sourced from Thorlux as below:

Tiered Lecture Theatres:

Due to the varied nature of many of the ceilings, these areas may involve a solution to each space to ensure adequate provision. These areas should be discussed in more detail with both the University and supplier.

Flat floor lecture theatres:

If soffit height is lower than 3.0m the following fittings are recommended:

Jubilee XL LED SMART

Viva LED SMART

If the soffit height is greater than 3.0m:

Light Line Suspended (LED version to be reviewed on a project by project basis)

Academic offices:

If soffit height is lower than 3.0m the following fittings are recommended:

Jubilee XL LED SMART

Viva LED SMART

If the soffit height is greater than 3.0m:

Light Line Suspended (LED version to be reviewed on a project by project basis)

Admin / Support offices:

If soffit height is lower than 3.0m the following fittings are recommended:

Jubilee XL LED SMART

Viva LED SMART

If the soffit height is greater than 3.0m:

Light Line Suspended (LED version to be reviewed on a project by project basis)

Meeting rooms:

If soffit height is lower than 3.0m the following fittings are recommended:

Jubilee XL LED SMART

LED Dot Halo with Satin Sparkle diffuser SMART

Viva LED SMART

If the soffit height is greater than 3.0m:

Light Line Suspended (LED version to be reviewed on a project by project basis)



Dot Halo



Flute



Cirro



Viva LED SMART

Laboratories:

The following fittings are recommended:

Jubilee XL LED SMART-Computer Laboratories

Viva LED SMART-Computer Laboratories

A-Line LED SMART Polycarbonate-Wet/Dry Laboratories

Corridors:

The following fittings are recommended:

Jubilee LED SMART

LED Dot Halo with Satin diffuser Sparkle

Recessed G3 LED.

If the soffit is height is greater than 3.0m:

Light Line Suspended (LED version to be reviewed on a project by project basis)

Flute LED's OR Cirro Megaman TC-T LED Replacement Lamps

To be taken into consideration:

- Lights (NOT LED) to be set to dim to a very low level and not go off.
- Emergency lighting to be put on a separate feed that only turn on with a power outage rather than having the emergency lights amongst all the other lights. Thorlux platform 3 system to be used with dedicated LED light fitting:- LEX, LED Surface/Downlighter and Mini-8



Recessed G3 Downlighters



Jubilee XL



Jubilee t5



Lightline suspended continuous



Lightline suspended individual

Appendix D – Accessibility

The guidance below is to be considered to convey many of the common situations. The British Standard BS8300 and Approved Document part M should be consulted for further information. It may be required to discuss the input of an Access Consultant for further recommendations. In this case, please contact the Aston University Estates Department for further consultation and information.

Adjacent differing surfaces are to have a 20 point minimum light reflectance value (LRV) differential, e.g. between floors and seats, switches and walls, ironmongery and doors etc. Further guidance should be taken from BS8300+A1:2010

Access Provision to lecture theatres:

Wheelchair seating positions should be provided within lecture theatres some seats should be provide with arms.

Spotlight provision should be made for both lecturer and a BSL position.

Power sockets should be provided for laptop users.

Contrasting nosings should be installed to aisles on tiered lecture theatres.

Adjustable height tables are to be provided.

WC:

Minimum clear areas and arrangements as shown in Approved Document Part M and BS 8300+A1:2010.

All taps to be lever, push or sensor operated.

Visual Beacons are required to fire alarms in sanitary areas.

Slide bolts are to be fitted to cubicle doors.

Hot water delivery is to be temperature controlled / limited.

Assistance alarms should alert a centrally staffed location noted by the University.

Signage:

Signage is to follow the Aston University Standard layout.

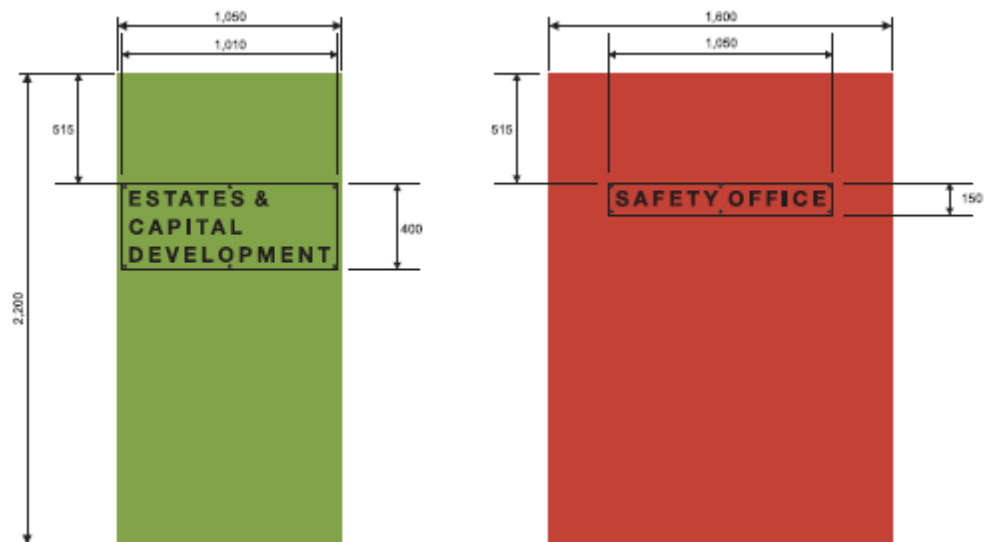
Please refer to Estates Department for guidance. To procure large wall signs, use Image Technique.

info@imagetechnique.co.uk

01527 578533

Room identifier signage is to be typically located on the wall to the leading edge side of the door located between 1400mm and 1700mm above the finished floor level.

WC signage should be embossed with pictograms in a contrasting colour to the door leaf.



Manifestation:

Manifestation to glazed screens and doors should reflect the diagrams in appendix B. There should be two bands of manifestation located between 850mm and 1000mm for the lower band and between 1400mm and 1600mm for the upper band.

In total, 10% of the area of glazing should be covered with manifestation that contrasts with the wall and floor surfaces behind.

The manifestation should differ between screens and doors to readily differentiate between fixed and movable elements

Where door leaves or side panels are wider than 450mm they should have vision panels towards the lead edge of the door to allow a zone of visibility from 500-1500mm. If a mid-rail is necessary, the vision panel may be interrupted between 800mm and 1150mm. Only for circulation spaces and not low usage spaces.

Appendix E – Ironmongery

Detailed requirements are to be scheduled individually. However, the following **STANDARD SPECIFICATION** should be adhered to:

Door furniture:

(to be supplied by: Doorfit Products Ltd, Icknield House, Heaton Street, Birmingham. B18 5BA. Tel: 0800 998 1909)

Door Handles: In219/0 S.S.S. (D.D.A) Safety Lever Door Handles On Round Roses (Product ID: ADO-IN219/0-SSS)

300mm Pull Handles: In250/300Cf 300Mm X 19Mm S.S.S. (D.D.A) Pull Handle On Roses

425mm Pull Handles Option where required: In250/425Cf 425Mm X 19Mm S.S.S. (D.D.A) Pull Handle On Roses

Europrofile Escutcheons: In2Ep 52Mm S.S.S. Euro Profile Key Hole Cover 8Mm

Finger plates: 381 x 76mm x 16g S.S.S Finger Plate drill and CSK.

Kick Plates: 150mm x 16g S.S.S drill and CSK. Length t.b.a.

Door Hinges (where not provided as a door set): 14929 100 x 76mm S.S.S Insignia Self Lubricating Hinge BS EN 1936/13-CF336 CE Marked

Flush Bolts; to secure secondary leaf on double doors - to be located on the secondary (first closing) leaf: S.S.S finish

Lock Cases:

Sashlock: UNION (ASSA ABLOY) Optimus3 2E21 - Euro Profile Mortice Sashlock with Square forend & striking plate

Digital Locks: Lockey Digital locks Override Keyed Facility to suit University Override Key (Supplier: Locks and Latches)

Lock Cylinders: All Euro profile cylinders will be provided direct from Aston University. They will be suited within the Master suite

Door Closures:

Fire Doors FD 30 FS: Briton 2003 V

Fire Doors FD 60 FS (Corridors): BM 6121 C – Supplier : BM Ltd.

Stand open closures: Briton 996 Electro Magnetic Hold Open/Free swing Door Closure 24VDC

Power Assisted Door Operators: DITEC WEL range of operators – Supplier : JMD Limited

Door and window ironmongery:

To be compliant with BS8300+A1:2010.

Appendix F – Energy & Sustainability

The Government's Climate Change Act 2008 sets legally binding targets for the UK to reduce CO₂ emissions by at least 80% by 2050 compared to 1990 levels. The HE sector has an average target of 43% to meet by 2020/21 compared to 2005/06 levels. Aston University has robust plans in place to meet the 2020 target at institutional level. The University has set itself a stretch target of 48% by 2020 in line with our Aston 2020 University Strategy. Sustainability forms one of the eight high level objectives of this strategy, and is therefore integral to all of Aston University's operations, including construction. Aston is committed to both the adoption and promotion of best practice for sustainable design, construction and building maintenance within the HE sector.

In line with our commitments, all new build, refurbishment and building maintenance projects undertaken by (or on behalf of) the University should:

- Minimise environmental impact throughout the life of a building by designing for minimum energy, water, and resource use, limiting waste production, preventing pollution and enhancing biodiversity.
- Favour contractors/consultants that are environmentally aware and have an Environmental Management System.

In order to meet these requirements, all projects need to be in line with the Sustainable Construction Scheme SKA HE <http://www.rics.org/uk/knowledge/ska-rating-/ska-he/> where if they are over £150,000 they will be assessed pre design stage in aim to meet a SKA HE Gold standard. Smaller projects below this spend will need to work within this document guidelines, which are in line with a Gold rating.

For smaller projects, where a full assessment isn't required, the below still needs to be implemented if any of the criteria is being looked at within the project.

Energy and CO₂

All the following energy consuming items that are implemented on a project must meet or exceed that stated in the Energy Technology List (found at www.gov.uk/government/collections/energy-technology-criteria-list-etcl-information-by-categories)

- Energy Efficient Commercial Service Cabinets (Include food storage; lab storage; bar cooling)
- DHW systems
- heat pumps
- HVAC including zone controls
- Primary heating such as boilers if not connected to the district heating scheme

Other requirements under this category are:

- Over door heaters are not permitted unless critical where they can only use heat from a VRF system or rejected heat (from cash machines if present, etc.) and automatically controlled to switch off out-of-hours and to moderate temperature.

Pollution

- The manufacture and installation of all new or reused insulants only uses products that have a Global Warming Potential (GWP) of less than 5.
- The systems using refrigerants are specified as Low GWP (Global Warming Potential) <2000; if possible Ultra-low (GWP<150)

Project Delivery

- Considerate Constructors Scheme - when project is 6 weeks or more it must be registered with Considerate Constructors Scheme to achieve at least 35 points; if less than 6 weeks the contractor is registered with the scheme and has obtained certification over the preceding 12 months.
- Furniture inventory - An inventory of all furniture items pre strip-out that categorises and uses the waste hierarchy to dictate what items are to be reused (decanted), shared throughout the campus, re-processed where repairs are needed for re-use, or given to the third sector.

Waste

Contractors must complete the University's Construction Waste Guidance form that request details of what types of waste have been generated and where they have been disposed of. Contractors are required to provide copies of waste transfer notes and consignment notes.

Where applicable, a majority of the following materials should be reused or recycled through a closed loop scheme (Closed loop" recycling is defined as a production process in which post-consumer waste is collected, recycled and used to make new products):

- Ceiling systems
- Chairs
- Doors
- Floor finishes
- Loose furniture
- Storage units
- Workstations and tables

Reuse can be broken down into 3 key areas:

- direct reuse – within the fit-out project or elsewhere within the organisation;
- donation – to charities, schools, social enterprises, etc.; or
- sale – to smaller companies and start up organisations, etc.

As part of tendering process manufacturers/distributors supplying the project should look to provide returnable/reusable packaging that they take back during the project.

Water

If new sinks or toilets are being installed as part of a project they must meet the following criteria:

- Efficient Taps - 4 litres a minute flow and auto turn off
- New low flush WCs - WCs have an effective flush volume of 4.5 litres or less
- Showers - Flow rate to showers is limited to 8 litres/minute up to a pressure of 5 bar
- (+/- 0.2 bar)

Sub meter on new projects

All new water, heat and gas feeds to any refurbished/ new building works needs to added to our aM&T (automatic metering and targeting) metering system (Elcomponent MeteRing). As a minimum all main incomers for electricity must also be added to this system, but preferably all newly installed sub meters should be compatible with the Elcomponent metering system. Any specialised equipment must also be included as a separate meter.

Commissioning guidelines

- For electricity meters contractors need to install meters that are compatible with the Elcomponent aM&T system. This will mean all sub and main incomers are connected to an Elcomponent gateway device that links to the University's IT network

- Contractors need to take note of the MAC address of any gateway device installed
- ISA need to be aware of any data points being installed that Gateways are linked to – preferably they should manage the installation. Please contact Gary Brittain to arrange this on ext. 4446
- ISA need to make any data points live (there is a cost associated with installation and making points live; currently £300 per data point)
- ISA need to be given the MAC address of the gateways, which they then provide contractors with an IP address for the purposes of adding the meters to the metering software.
- Once all this is complete then please contact Andrew Bryers at Aston on ext. 4333 to commission the meters or Elcomponent directly on 01279503173 and provide them with the IP address given.

For heat, gas and water meters they need to have a pulsed output that is then cabled back to an Elcomponent meter called a 4 mod:

<http://www.elcomponent.co.uk/site/product/view-product/product-59/4MOD-Pulse-Logger.html>

This 4-mod needs to be connected to the Gateway device described above.

Appendix G – Space Standards

Introduction

The University's estate is an important and expensive resource to provide and maintain. So that the estate can be maintained in a fit for purpose condition it is imperative that the size of the estate does not exceed that which is financially sustainable.

The University has devised an Estate Strategy and Master Development Plans which are designed to improve and reduce the size of the estate. A Space Standards Policy has also been developed which defines the framework by which all space should be allocated. The ultimate aim is that a reduced but fit for purpose estate in good condition will be provided as a result of improved space efficiency and planned capital investment.

Open Plan Offices and Shared Space

As part of these plans the University is seeking to encourage and increase the use of open plan or shared office accommodation which will bring the following financial, departmental and environmental benefits;

- Open plan creates a more flexible space which can better accommodate departmental changes over time.
- The need to reconfigure the building is reduced therefore lowering future build costs and building materials required.
- Easier to relocate staff therefore reducing move costs.
- Improved interaction between teams and departments.

Office space 'norms' per person have been developed (please see separate Space Standards Policy for further detail) which will ensure efficient use of open areas and will standardise space per person across the disciplines. It would normally be expected that in open plan areas an efficient configuration of furniture would broadly consist of wave desks arranged in small clusters with high storage positioned against the end walls.

The University is also planning the following measures to improve space efficiency;

- The centralisation of generic spaces such as teaching areas and meeting rooms, and will plan to reduce the total number of these rooms therefore increasing utilisation rates.
- Circulation and non-usable areas, including the inner duplicate corridors along the wings of the Main Building, shall be reduced wherever possible.
- Where practicable Schools and Departments shall share space where common functions exist, i.e. lab space, common rooms etc to reduce duplication of activity.

Furniture Standardisation

The University currently possesses office furniture of many varying sizes, shapes and finishes many being large and bulky, often the large 'L' shape desks. The standardisation of furniture across the university would create a coherent and uniform approach across the disciplines and would promote ease of re-use between departments over time.

Standardising on smaller desks than those currently in use would help the implementation of efficient space 'norms' and wave type desks will enable improved future flexibility during reconfigurations.

Appendix H – Toilet Refurbishment

With strict University climate change targets, energy and water reductions are a key area that needs to be incorporated into all restroom refurbishment projects. The following criteria should be met at all times when a restroom is being refurbished or a new restroom is built:

- Taps – All taps to have a maximum flow rate of 6 litres/ minute.
- Taps – All sinks (apart from disabled toilet areas) should have percussion or push button taps with their run time adjustable (10 seconds as best practice).
- Taps– All taps to have a built in flow limiting aerator.
- Sinks – Sinks should have a small capacity, to reduce the amount of water that a person can fill the sink.
- Urinals - UC/2 Water Managers and Waterless Tri-(Odour)-Traps to be fitted into all urinals to make the virtually waterless. The urinal flush controls should be configured to flush only twice a day.
- WC - All WC's to have an effective flush volume of less than 4.5 litres.
- WC – Toilets should have a dual flush facility.
- WC – Use of standard push/pneumatic (or similar) syphon type due to inefficiency of electronic solenoid operated flush systems (these must never be used).
- Showers – A flow rate of between 5-7 litres per minute, with flow regulators and aerators to be encouraged to further reductions.
- Heating - Only background level heating should be provided in the space.
- Hand driers – Only low energy hand driers should be installed instead of using paper towel dispenser.
- Lights – All lighting in the room as well as any lights before the entrance doors should be on a PIR sensor to go on when movement is detected. Where possible LED lighting should be incorporated and LUX levels need to be moderate and not too high.
- Ventilation – Extractor fans in the room should be linked to a PIR movement sensor to ventilate the space, as required, when occupied.
- Windows – For refurbished areas, windows should be adequately sealed to prevent drafts and their opening levers should be in working condition.

For any new build projects then implementing a grey water system into the building plan should be investigated, where recycled water is used in areas such as toilet flushing.

Appendix I – IT Requirements

IT Cabling

Any IT cabling installations should conform to the Aston Cabling Specification (copy available on request) and the cabling contractor specified within the specification should be used.

IT requirements for server rooms

The requirements for IT rooms will vary slightly depending on the requirements to the particular project (e.g. equipment it is housing) but in general we would suggest the following:

- Resilient Air Treatment (maybe 2 x air conditioning units)
- Separate Power board supporting at least 6 x 16A fused spurs (surge rated to 20A) and 4 x 32A 3phase (Large Server rooms only)
- Raised Floor if possible (large Server Rooms only)
- Room needs to be secure (preferably with JANUS swipe card system with PIN)
- Dust free including the door and all service entry points into the room being sealed
- Fire Detection and containment (i.e. fire rated room)
- Water Leak detection
- Power Sockets on wall (2 x 13amp)
- Clean Earth bar off Mains Earth (for rack and equipment earth)
- Noise reduction (equipment being installed is noisy and constant)
- Antistatic floor
- Ample space to provide 1m access front and back of racks
- No further equipment installed within the room without agreement (based on scale drawings etc)
- No building services pipe work should pass through the room.
- Room preferably situated on an outside wall but with no windows
- Adequate lighting, taking into consideration the position and height of equipment racks
- Emergency Power off switch to isolate room power
- Fabric of the walls and ceiling should be substantial enough to attach cable management/tray
- The siting/location of any IT rooms needs to be such that the cable length to/from the furthest network point is less than 90m.

IT requirements for connection of BMS and Building Services

Equipment or plant can be connected to the University BMS by using the University Ethernet network.

Please note generally “Hubs” cannot be connected to network points, where this is a requirement then it must be pre-approved by ISA. ISA will require MAC address before IP address can be allocated.

Where this is required or intended then a network point or points will be required in the location of the equipment to be connected. The University ISA department must be made aware as early as possible of this requirement indicating the exact number and location of the network points.

Appendix J – Standard Installation Requirements

Doors

Door handles are to be bolted through the lock case and not just screwed into the door face.

Blinds

Blinds are to be side fixed not soffit fixed.

Locks

All new locks must be able to be opened with current master keys.

Hold Open Door Closures

All hold open door closures which are linked to the fire alarm system shall be Briton 996 door closure.

Door Hinges

Where doors are fitted to existing frames

If doors and hinges come as a set then use the hinges provided.

Clip Frames

Clip frames shall be white (could be old silver style but coated). New clip frames are to be procured from Fast Frames. A3 and A4 sizes are available at:

http://www.fastframes.co.uk/acatalog/A4_Snap_Frames_White_25_mm.html

http://www.fastframes.co.uk/acatalog/A3_Snap_Frames_25_mm_White.html

Appendix K – Fire Detection Principles of Design

Category L4 provides detection within escape routes only. This is also to include rooms off escape routes where there is another internal room to escape from.

Enhancements in detection to the L4 system for these areas are to include as a minimum the following areas:

- Plant rooms.
- Lift motor rooms.
- Electrical Switch rooms/cupboards.
- Cleaners rooms
- Kitchen areas.
- W/C areas including disabled and staff.

With respect to location of MCP units these are to be designed to standard BS 5839, whereby the maximum distance to travel to a MCP is to be no greater than 45 meters. A MCP must be located at a change of level. In addition to this and as part of the enhancements all labs must have a MCP fitted at the exit doors from the Lab area.

With reference to audio and visual indication. The following should be provided:

- Audio indication to provide a minimum of 65db in all areas.
- Areas where there is no staff supervision must also include visual indication. e.g. Lecture theatre.
- All W/C and disabled areas are to be provided with audio and visual indication.
- Plant rooms are to be provided with audio and visual indication.
- Lift motor rooms are to be provided with audio and visual indication.
- General circulation areas are to be provided with audio and visual indication.
- Any area deemed to be of high noise level is to be provided with audio and visual

Indication.

With reference to interface devices these should be provided as a minimum at the following locations:

- All door access controlled doors.
- Doors hold open devices.
- Plant shutdown.
- MCC control.
- Gas Valves.

It should be noted that where possible combined detector and audio visual indication may be used.

- The design of works / projects must be carried out in a manner that incorporates, includes or is capable of having installed, fitted or connected to a Fire Alarm or Detection system.
- The system must be fully compatible and inter-changeable with the University Fire System and were necessary any other monitoring system used within the University or connected to any external system to the University Campus. (link with above point)
- Where works / projects cover or utilise a number of locations, areas or rooms within the University buildings or supporting infrastructure. It must be designed, constructed and installed in accordance with any Fire Regulations, applicable regulations, guidance notes and industry standards.
- The works / project must be capable on completion or during its construction or installation, through design or plan, a level of fire resistance and compartment ability that is compliant with University standards and requirements.

Fire Resistance, Protection and Control:

Where materials used for the containment, transportation, use, storage or discharge of gases, solvents and hazardous substances have a potential to develop, present or contain a Fire Risk.

- All of the materials must have been assessed and confirmed as being of an appropriate standard of Fire Resistance with a minimum of sixty (60) minute resistance.
- Confirmation of that resistance must be made at pre-commencement of works / project stage and this be notified to the University Fire Officer in writing accompanied by appropriate information.

Appendix L - Induction Loops

Aston should fit phased array induction loops in teaching and meeting rooms seating more than 20 people as a standard feature of any future refurbishment or new build developments.

The loop should cover a minimum of 80% of the room surface area and, where necessary, a room plan showing coverage will be permanently posted at the entrance to the room together with a loop sign.

Where 80% coverage cannot be achieved due to physical limitations within the building infrastructure an IR system will be installed as an alternative together with key-coded secure storage for the receivers.

Appendix M - Gases / Solvents and Other Hazardous Substances

Implementation:

- The design team shall produce with the users, a suitable design that ensures manufactured products, installations, developments and materials to be used are compliant to the regulatory standards.
- Supply of the "Briefing Notes and Design Guide for Gases / Solvents and other Hazardous Substances" document will be available from Aston University on request.
- All parties involved are required to communicate appropriately throughout project / works at all times and provide all required information in a timely and understandable form

Materials, Components or Resources

- All materials, components and resources proposed to be used should be of an appropriate standard or regulatory standard where applicable
- These materials, components or resources should be set against the design and where necessary the designers should work closely with the end users to ensure cost effective outcomes

Specification / Outline Details for Projects / Works

A specification / outline will be provided by the University for / to designers / architects to be used in the development of designs / plans.

- Designers / Architects will further develop any outline designs / plans to final design / plan stage, by and through, working with end users.
- Designers / Architects must not be influenced to extend the original specification / outline, other than for reasons of Health and Safety, Procedural undertakings not originally notified of. Or any other such reason that would or could result in failure culminating in an accident / incident.
- All Designers / Architects must ensure that all relevant and appropriate project / works, regulations, guidance notes, approved codes of practice or any other such information is identified and given full consideration. Those considerations being fully incorporated within designs / plans as necessary

Components, Sections, Parts and Systems

All components, sections, parts and systems as a whole must be tested in accordance with all regulatory requirements and standards for all works / projects of the nature intended for use. This requirement not withstanding will apply as a standard process for all works / projects.

- Designers / Architect and end user must note that the University may require further tests or standards to be applied for specific requirements, works / projects.
- Notification of any requirements or standards to be applied that are not regulatory or industry standard will be made to Designers / Architects prior to commencement of any works / projects. However the University does retain the right to amend or require further requirements or standards to be addressed concerning designs / plans, at a later date. Should issues of health, safety and welfare become known or evident in projects / works

Manufacturers Declarations

Prior to any testing all components, sections, parts or systems provided by a manufacturer shall specify where applicable

- Information confirming that components, sections, parts or systems conform to regulatory or industry standards
- In the event of failure or fault that were applicable, components, sections, parts or systems will be subject to replacement or repair at the cost to the manufacturer or installing agent.
- Any costs produced by failure or fault of the components, sections, parts or systems will be set against life expectancy and usage or in line with manufacturer issued guarantees.
- Copies of Manufacturers Declarations will be obtained and provided to the University were applicable

Information on Test Certificates

In cases where certification is necessary or is available as a means of confirmation of conformity this will be required. Any certificates where applicable will be provided by the tester or testing body or from the Designers, Manufacturers, Suppliers or Service Provider.

The information on the certificate shall state:

- Name and address of the Designers, Manufacturers, Suppliers or Service Provider
- Name and address of the tester or testing body
- A unique certificate number
- A full description of the components, part, section or system
- Full description of and Health, Safety or Environmental measures / standards
- A full name or description of the component, part, section or system
- Particular capabilities of Performance, Fire protection, Resistance and Safety

- Any certificate shall be signed and dated by the person or body issuing or responsible for the testing and its control.

Resistance of Materials to Gases, Solvents and Hazardous Substances

- That the materials are compatible with any regulatory or industry standard or capable of ensuring that any risk of degradation, damage or failure, will not occur due to the hazardous nature of the gases, solvents or hazardous substances. They must be assessed by the designer, specifier or others as to its capability of resistance. The information where applicable must be recorded on or in, drawings, design criteria, materials listings, outline briefings or any other such information that would be.
- Due to Construction (Design) Management Regulation all materials used must have appropriate information obtained and included in Health and Safety Files
- All materials used (components, parts, sections and systems) must be capable of failing to safe or isolation and not release to the environment any of the gases, solvents or hazardous substance it may contain, transport, use or discharge.

Design of Works and Projects:

- The design of any works / projects are required by the University to ensure that risk and hazards that would be present at completion and use of any part or the whole of the works / project are identified first.
- That this used in the development of outline designs / plans which should then be presented for assessment and acceptance by the University.
- No design / plan should be developed or initiated so that construction or installation is undertaken without the acceptance of the University.
- If a design has any residual risks or hazard remaining after this process, they must be fully documented with any information or procedures to control the residual risk or hazard provided to the University

Refer to Regulatory Requirements:

- Health and Safety at Work etc Act 1974
- Construction (Design) Management Regulations
- Management of Health and Safety Regulations
- Control of Substance Hazardous to Health Regulations
- Gas Safety (Installation) Regulations
- Dangerous Substances and Explosive Atmospheres Regulations
- Petroleum Regulations
- Management of Health and Safety Regulations
- Control of Substances Hazardous to Health Regulations
- Installations Handling Hazardous Substances Regulations
- Provision and Use of Work Equipment Regulations
- Hazardous Area Classification and Laboratory Operations
- Workplace Health Safety and Welfare Regulations
- Fire Safety in Laboratories Guidance Notes
- Flammable Substances Regulations
- Fire Safety Regulations
- Safety Signs and Notices Regulations
- Supply of Machinery Regulations
- Electricity Regulations

Appendix N – Asbestos Approved Contractors For Inspection / Removal

Asbestos Inspections:

All inspections and subsequent asbestos reports should be completed by Bradley Environmental. The asbestos register, maintained by Bradley

Bradley Environmental Consultants Limited

20 Stourbridge Road
Halesowen, Birmingham
West Midlands
B63 3US

Contacts: Matthew Turner Tel: 0121 550 0224 Email: info@bradley-enviro.co.uk

Asbestos Framework For Removal:

TENDER Ref. EU/055/0511/ASB

Commencing 01/04/2013 for 3 years (ending 31/03/2016), with the option for a fourth year.

Insulation Contracting Services Ltd

2 Butchers Court, 1692-94 High Street
Knowle, Solihull B93 0LY

Contacts:- Winn Jones (tel. 07825 005254), John Ward (01564 779204)
Tel. 01564 779204

J. Cullen Thermals Ltd

202 Deykin Avenue
Witton , Birmingham
B6 7BH

Contact: Brian Slammon (tel. 07887 764509)
Tel. 0121 327 5260,

Maylarch Environmental Ltd

Unit D Oakwood Industrial Estate
Eynsham, Oxfordshire
OX29 4TH

Contacts:- Nick Williamson (tel. 07770 275456), Chris James (01865 883829)
Rob Morrison -01865 883829.

Appendix O- Way finding Signage

Way-finding signage for each section of the Main Building, the relevant walls are to be painted on using Dulux Trade paint using the colours specified below:



West Walls

Dulux 50GG 11/251



East Walls

Dulux 43RR 19/444



North Walls

Dulux 10YY 24/467



South Walls

Dulux 70BG 24/380